

ABSTRACTSPEECH PROCESSING SYSTEM

5 A speech processing system is provided which is operable  
to receive sets of signal values representative of a  
speech signal generated by a speech source as distorted  
by a transmission channel between the speech source and  
the speech processing system. The system stores data  
10 defining a predetermined function derived from a signal  
model which models both the speech source and the channel  
and defining a probability density function which gives,  
for a given set of model parameters, the probability that  
the signal model has those model parameters given that  
15 the signal model is assumed to have generated the  
received set of signal values. The system applies a  
current set of received signal values to the stored  
probability density function and then draws samples from  
it using a Gibbs sampler. The system then analyses the  
20 samples to determine a set of parameter values  
representative of the speech signal before it was  
distorted by the channel.